

DETAILED ACTION

1. This application contains claims directed to the following patentably distinct species:

Species I: Figure 4

Species II: Figure 5

Species III: Figure 6

Species IV: Figure 7

2. The species are independent or distinct because Species I describes a first embodiment that uses piezoelectric actuators (58) and a fluid filled sealed bellows amplifier (60) as a means to affect movement of the annular member (30). Species II describes a second embodiment that uses a flexural amplified piezoelectric actuator (62) and a flexural amplifier (64) as a means to affect movement of the annular member. Species III describes a third embodiment that uses a plurality of shape memory alloy wires (66) and an electricity supply (68) via a switch (70) to affect movement of the annular member (30). Species IV describes a fourth embodiment that uses a fluid supply (72) and a valve (74) to affect movement of the annular member (30) wherein the annular member (30) is hollow and has a chamber (74).

3. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is considered to be generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

4. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron R. Eastman whose telephone number is 571-270-3132. The examiner can normally be reached on Mon-Fri 9:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on 571-272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aaron R. Eastman
Examiner
Art Unit 4147

/George Nguyen/

Supervisory Patent Examiner, Art Unit 4147